VESSEL WITH INTEGRATED LIQUID LEVEL SENSOR

ABSTRACT

A capacitive liquid level sensor is integrated with a drinking vessel or the like, and provides a sensory output signal having a characteristic that varies as a function of liquid level in the vessel. The vessel can have a hollow wall with conductive plates placed or affixed on a back surface of an inner wall panel of a hollow wall or protected by a handle. The plates form a capacitor for which liquid displacing air in the vessel provides at least part of the dielectric. A timing circuit is responsive to the capacitance of the plates, which changes when the liquid level displaces air from around or between the plates and changes the effective dielectric constant. The circuit can produce a preferably non-visual signal that varies over a range of liquid levels, or can change when the level passes a threshold level.